

MEMORANDUM

To: Clive Rooney

From: Jay Newell, Wildlife Biologist

Date: 02/25/2008

Subject: Winter Flight, Martinsdale Colony

Clive.

We finally had good flying conditions, a pilot available, and a biologist available. Since we had three of the four desirable conditions, the fourth being good snow cover, I decided to fly the Martinsdale Colony on 02/20/2008. Weather conditions were good for the flight, with skies estimated at 90% clear, winds 0-5 miles per hour at the start of the flight and under 15 at the end of the flight. The temperature was warmer than I would normally like to see at this time of the year, 41 degrees F at 0730.

The pilot for the flight was Don Newton from Newton Aviation in Lewistown and I flew as the observer. We met in Harlowton at 0720 and were in the air by 0730. We finished the survey at 0951 and were back to the Harlowton airport by around 1000. Overall, I felt that we had an effective flight and although we had no snow cover, I believe we saw a majority of the big game on the ranch. We flew north/south transects, ½ miles apart, starting in the southeast corner of the property and worked our way to the west. We used Highway 12 as our southern boundary. As you can see from the track log, we counted animals outside the study area in some cases but they were usually within 1 mile of the boundary (Figure 1). Figure 2 shows the locations of the groups and the number of animals in each of those groups.

Overall, we observed more animals than I thought we would. Under more severe winter conditions, I believe that more antelope would have been concentrated in the northwest part of survey area and that deer would have been more concentrated on the timbered ridges on the north end of the property. Under deep snow conditions, wind-swept ridges in the area would be important to wintering big game animals.

I did not attempt to classify animals during this flight and provide only raw number of animals observed by species (Table 1). I also observed a large number of crows and pigeons in the area near the colony but, did include those observations in this data.

If you would like to discuss this survey or need additional information please let me know.

Sincerely,

Jay Newell, Wildlife Biologist 1425 2nd St. W. Roundup, MT 59072

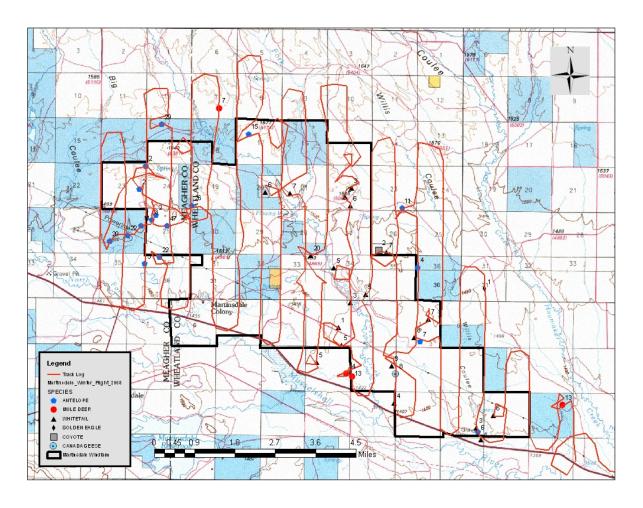


Figure 1. Track log of flight on the Martinsdale Colony, 02/20/2008.

Table 1, Number of animals observed during a survey of the Martinsdale Colony, 2/20/2008.

| Species | Total Number Observed | Number Within Boundary |
|--------------|-----------------------|------------------------|
| Antelope | 234 | 110 |
| Mule Deer | 47 | 13 |
| Whitetails | 110 | 90 |
| Golden Eagle | 1 | 0 |
| Coyote | 2 | 0 |
| Canada Geese | 8 | 8 |

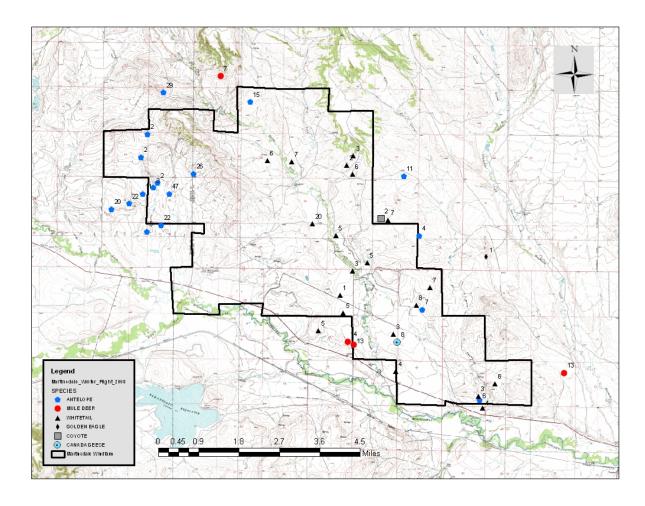


Figure 2. Locations of, and number of animals observed on the Martinsdale Colony Flight 02/20/2008.